



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/551,051	04/18/2000	Arup K. Basak		2218

23416 7590 12/08/2003

CONNOLLY BOVE LODGE & HUTZ, LLP
P O BOX 2207
WILMINGTON, DE 19899

EXAMINER

SHOSHO, CALLIE E

ART UNIT PAPER NUMBER

1714

DATE MAILED: 12/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/551,051

Applicant(s)

BASAK ET AL.

Examiner

Callie E. Shosho

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-14 and 16-20 is/are rejected.
- 7) ☒ Claim(s) 15 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. All outstanding rejections except for those described below are overcome by applicants' amendment filed 9/15/03.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-7, 9, 11-12, 14, and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doi et al. (U.S. 6,378,999) in view of Zhu (U.S. 5,889,083) and either Sano et al. (U.S. 5,324,349) or Kubota et al. (U.S. 6,323,370).

The rejection is adequately set forth in paragraph 3 of the office action mailed 5/13/03 and is incorporated here by reference.

4. Claims 10, 13, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doi et al. in view of Zhu and either Sano et al. or Kubota et al. as applied to claims 1-7, 9, 11-12, 14, and 16-19 above, and further in view of Ma et al. (U.S. 6,455,628).

The rejection is adequately set forth in paragraph 4 of the office action mailed 5/13/03 and is incorporated here by reference.

Response to Arguments

5. Applicants' arguments filed 9/15/03 have been fully considered but they are not persuasive.

Specifically, applicants argue that:

(a) the disclosure of acrylic emulsion in Doi et al. is only one of a laundry list of compounds.

(b) There is no disclosure in Doi et al. of surface tension as presently claimed.

(c) There is no motivation to combine Doi et al. with other references.

With respect to argument (a), applicants argue that Doi et al. do not recognize the criticality of using acrylic polymer emulsion and that the disclosure of acrylic polymer emulsion by Doi et al. is only in passing.

It is noted that col. 11, line 66-col. 12, line 7 of Doi et al. disclose that in order to control ink properties polymer emulsion such as acrylic polymer emulsion is used.

While acrylic polymer emulsion is but one of the polymers disclosed by Doi et al. that function to control the properties of the ink, the fact remains that Doi et al. do explicitly disclose the use of such acrylic polymer emulsion. Further, it is noted that the selection of the acrylic resin is not from amongst a vast number of polymers but rather the use of acrylic polymer emulsion is one of fourteen types of polymers disclosed by Doi et al. for controlling the properties of the ink with acrylic polymer emulsion bring one of two polymer emulsion explicitly disclosed. Additionally, there is motivation or guidance to select out acrylic polymer emulsion

Art Unit: 1714

given that, as noted by applicants, the use of such acrylic polymer emulsion is found in example 14 of Doi et al.

In light of the above, and absent evidence to the contrary, it therefore would have been obvious to one of ordinary skill in the art to use acrylic polymer emulsion in the ink of Doi et al., and thereby arrive at the claimed invention.

With respect to argument (b), applicants note that Doi et al. exemplifies 17 inks, 6 of which meet the requirements for surface tension as set forth in the present claims. However, none of these 6 inks contain ink ingredients as presently claimed.

It is agreed that Doi et al. do not exemplify ink composition comprising ingredients and surface tension as presently claimed. However, “applicant must look to the whole reference for what it teaches. Applicant cannot merely rely on the examples and argue that the reference did not teach others”, *In re Courtright*, 377 F.2d 647, 153 USPQ 735,739 (CCPA 1967). A fair reading of Doi et al. as a whole discloses that Doi et al. teach the use of an ink comprising water, ethanol, solubilized dispersant, pigment, defoamer, and acrylic resin emulsion as presently claimed. Further, col.9, lines 40-43 of Doi et al. disclose that the surface tension of the ink is controlled using surfactant. Additionally, it is well known as found in Ma et al. that pigmented inks typically possess surface tension of 20-70 dyne/cm.

Thus, given that it is well known that pigmented ink jet inks possess surface tension of 20-70 dyne/cm, given that Doi et al. disclose use of ink containing ingredients identical to those presently claimed, and given that Doi et al. teach controlling the surface tension of the ink through the use of surfactant, it therefore would have been obvious to one of ordinary skill in the

art, absent evidence to the contrary, to control the surface tension of the ink of Doi et al. to values, including that presently claimed, and thereby arrive at the claimed invention.

With respect to argument (c), applicants argue that there is no motivation to combine Doi et al. with other references given that Doi et al. state that the exemplified inks satisfy “all required conditions”.

However, it is noted that Doi et al. is only combined with Zhu, Sano et al. or Kubota et al., and Ma et al. In each case, the secondary reference is not used to add additional ingredients to the ink of Doi et al. but rather to expand on a teaching already disclosed by Doi et al. or as evidentiary evidence to support examiner’s position.

For instance, Doi et al. teach the use of acrylic polymer emulsion, but do not teach the amount in which such emulsion is used. Sano et al. or Kubota et al. are each used only to teach the amount of such acrylic polymer emulsion already disclosed by Doi et al.

Further, Zhu and Ma et al. are only used to support examiner’s positions regarding defoamer/surfactant and surface tension, respectively, not to motivate the addition of any new components to the ink of Doi et al.

Allowable Subject Matter

6. Claims 15 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 1714

Claims 15 and 21 would be allowable if rewritten in independent form as described above given that there is no disclosure or suggestion in Doi et al. (U.S. 6,378,999) of ink possessing particle size of 280-300 nm as required in these claims.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 703-305-0208. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

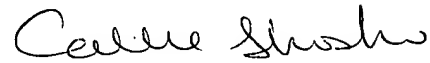
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 703-306-2777. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9310.

Application Number: 09/551,051

Page 7

Art Unit: 1714

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Callie E. Shosho
Primary Examiner
Art Unit 1714

CS

12/3/03